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# MACHINISTS & BLACKSMITHS AND JOURNAL

JOHN FEHRENBACH, EDITOR  
CLEVELAND, OHIO.

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BALLOU-CLEV.O.

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**No. 110 Seneca Street, Cleveland, Ohio.**

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Journeymen Machinists and Blacksmiths residing on the continent of North America, desiring to organize Unions to act in concert with those already organized, can obtain all necessary information relative to the formation of Unions under the jurisdiction of the International Union of North America, by addressing

**JOHN FEHRENBATCH,**

**No. 110 Seneca Street, Cleveland, Ohio.**

# MONTHLY JOURNAL.

JOHN FEHRENBATCH, EDITOR.

VOL. X.—No. 11. CLEVELAND, OHIO, SEPTEMBER, 1873. \$1 PER YEAR.

## Scientific.

### MECHANICAL DRAWING.

[For the Machinists and Blacksmiths' Journal.]

A POINT is something that has neither length, width, nor thickness. A line is something that has length, but no width or thickness. We can imagine a straight line made up of innumerable points, put close together, in one direction. If we take any two of these points, and draw a straight line through them, this line will take up all the other points I have mentioned; hence any two points destine a line. To find the projections of a line we only need to find the projections of two points of it. The connection of the first projections of the points is the first projection of our given line; the second projection is found in the same way. Whatever position a line may have in regard to the projection planes, its projections are all found in the same manner. The line can be irregularly drawn, or

can be parallel to both planes, parallel to one plane and perpendicular to the other, parallel to one plane and inclined to the other; it can intersect the axis; it can finally lay wholly in one plane.

Fig. 1. We imagine any line drawn in the room between the projection planes. Take two points of it,  $a$  and  $b$ , find  $a^1$  and  $b^1$  and  $a^2$  and  $b^2$  as described in the previous article. The connection of  $a^1$  and  $b^1$  is the first projection of our line, and the connection of  $a^2$  and  $b^2$  is the second projection.

Fig. 2. If the given line is parallel to both planes, it is parallel to the axis, consequently its projections are parallel to the axis and equal—equal to the line itself. The perpendiculars let fall from the point of the given line to any one of the projection planes measure the distance between them and one of the respective planes as demonstrated in the August number. Hence it will be plain that if the line is parallel to the axis, and equally

distant from either projection planes,  $aa^1$  or  $ca^2$ , is equal to  $aa^2$  or  $ca^1$ .

Fig. 3 represents our line in said position;  $ca^1$  equal to  $ca^2$ .

Fig. 4. Our line is perpendicular to one of the planes, and consequently parallel to the other. Suppose it be perpendicular to the second projection plane, we find the projections in the manner described. We take two points of the line  $a$  and  $b$ , let fall perpendiculars to the projection planes; here we observe that both perpendiculars  $aa^2$  and  $bb^2$  will coincide with the line itself; a point will, therefore, be the second projection of the line. The first projections of these points lay on the perpendicular to the axis drawn through their second projections; we find them and see that the first projection of our line is perpendicular to the axis.

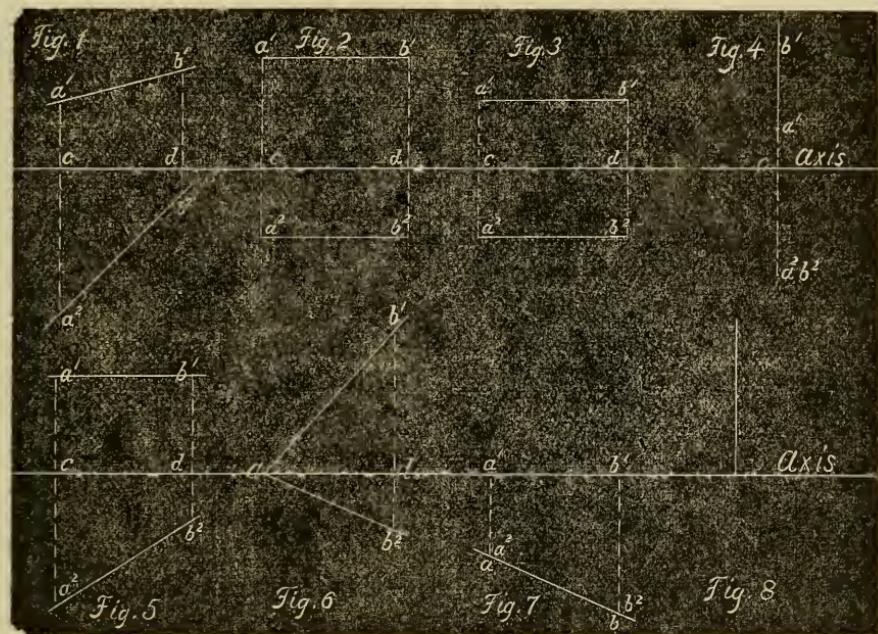
Fig. 5. The line is parallel to one projection plane and inclined to the other. It may be parallel to the second projection plane. Our two points are again  $a$  and  $b$ . It is easy to see that the perpendiculars  $aa^2$  and  $bb^2$  are equal, in consequence of the line being parallel to the second projection plane, but  $aa^2$  and  $bb^2$  are respectively equal to  $ca^2$  and  $bb^1$ ; hence the first projection of the given line is parallel to the axis.

Fig. 6. The line intersects the axis; the point of intersection is at  $a$ . This point represents as well the real point  $a$  as its two projections. We take point  $b$ , find its two projections, connect  $a$  with either one, and our problem is solved.

Fig. 7. The given line may lay wholly within one plane. Suppose it lies in the second projection plane. Points  $a$  and  $b$  are their own second projections. From  $a$  and  $b$  we let fall perpendiculars to the first projection plane. These perpendiculars will lay wholly in the second projection plane, and their foot-points will be on the axis, consequently the first projection of the line coincides with the axis.

Fig. 8. The line lays within the first projection plane and is perpendicular to the second projection plane. It requires but little thinking—the second projection will be a point of the axis; the first projection commences at this point, and stands perpendicular to the axis. If the line coincides with the axis it will be its own first and second projection.

A plane is something which has length and width, but no thickness; it has, mathematically speaking, no limits. If a plane stands perpendicular to another its projection on this plane is a



line; because, if from every point of the plane perpendiculars be let fall to the other, all foot-points (projections) of these points, making up the plane, will lay in one straight line.

This chapter is rather tedious I concede, but those who wish to become expert mechanical draughtsmen must remember that they can do so only through patience and perseverance. I found the study of the rudiments of drawing very tedious, indeed, and found myself taxed with a great deal of patience to overcome the obstacles which surrounded my pathway to success. I find, however, that since I have

overcome many of these obstacles have been sufficiently rewarded for all my troubles and vexations.

In order to receive the knowledge intended to be imparted by the lessons given, it will be necessary for the student to provide himself with a draughting-board, a T square, a tri-angle and other drawing instruments.

In my next article I will demonstrate the method of finding the first and second projections of a point, a line and a plane. I propose to speak exclusively of bodies, all of which will be accompanied by engravings made expressly for the JOURNAL.

R. B.

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**THE LARGEST STEAM ENGINE IN THE WORLD.**


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Pittsburgh claims to have in progress of construction a pair of engines which will be the most powerful in the world. Reducing the capacity of some of the largest pumping engines to a uniform lift of one foot in twenty-four hours, it is found that the one at the Lehigh zinc mines will lift 3,456,000,000 gallons; the pair at the Chicago water works 4,500,000,000 gallons; the pair at Haarlem, Holland, 10,000,000,000 gallons. The pair will weigh 1,500 tons, and will cost \$423,550. The following dimensions will serve to give some idea of its magnitude: Cranks, nine tons; shaft, twenty-four tons; four sections of the two valve chambers, one hundred and twenty tons; fly-wheel, seventy tons. The four plungers will weigh upward of four hundred tons. Cylinder, sixty-four inches diameter; stroke, fourteen feet. Plungers, forty inches diameter; eleven feet stroke. This ponderous piece of machinery will be used to raise water into Highland avenue reservoir in Pittsburgh, a hight of three hundred and fifty-six feet. It is estimated it will raise seventy million pounds of water for each hundred pounds of coal consumed, the cost being at the rate of one cent for every 3,070 gallons.

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**TO MEASURE THE HIGHT OF TREES.**


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When a tree stands so that the length of its shadow can be measured, its hight may be readily ascertained as follows: Set a stick upright (let it be perpendicular by the plumb line). Measure the length of the shadow of the stick. As the length of its shadow is to the hight of the stick, so is the length of the shadow of the tree to its hight. For instance: if the stick is four feet above the ground and its shadow is six feet in length, and the shadow of the tree is ninety feet, the hight of the tree will be sixty feet (6:4:90:60). In other words, multiply the length of the shadow of the tree by the hight of the stick, and divide by the shadow of the stick.

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A Pittsburgh firm claims to have discovered a process by which they can make the famous Russian sheet iron. The latter is made in Siberia by a secret process which no other nation has hitherto been able to obtain. The British government has offered £50,000 for its discovery; even the stimulus of that large sum has failed to achieve the result. American enterprise and ingenuity have accomplished it, and Pittsburgh, it is said can now furnish all common markets with Russian sheet iron at even lower prices than the Russians.

## *Editorial.*

### ARBITRATION AGAIN TRIUMPHANT.

FOR the past two months our organization has been considerably agitated over a dispute which unfortunately arose between it and Messrs. Stearns, Hill & Co., of Erie, Pa. Much ill-feeling prevailed throughout the country against those who sought to proscribe men on account of their connection with the Machinists and Blacksmiths' Union. Our readers have been made acquainted with the particulars connected with the action of the proprietors of the Presque Isle Iron Works in reference to their discrimination against members of our organization, and how the superintendent of these Works sought to wreak out vengeance against all who were connected with our order. Many will remember how he has been paraded in these columns in anything but a favorable light; they will also remember the severe invectives applied to him, the criminations and recriminations heaped upon him, and how he was held up to public scorn and contempt for seeking to degrade men by asking them to surrender their manhood in subscribing to his dictates—which was to pursue a line of policy foreign to the contract of the men

to do a fair day's work, and assuming authority entirely beyond the limits of his jurisdiction as superintendent of the shops under his supervision. It will also be borne in mind that Mr. E. H. Stearns, the senior partner of the company in question, was paraded before the public for what we supposed to be hypocrisy, and how he was held up to ridicule and scorn for his actions toward his employees, which action to us at the time appeared to be very inconsistent with his professions as a true Christian gentleman. In all this we acted honestly and conscientiously. The action of Mr. Stearns in refusing to meet us before the strike commenced left us but one side of the question upon which to base our action. Here is where we believe he made a grave mistake. Had he met us, as we supposed he would when we left our office for Erie, the whole difficulty would have been settled then and there, but when he did not grant us an interview we were naturally lead to the conclusion that the charges raised against him and the shop he represented were true, and as such we gave them to the public. Since then, however, we have received the other side of the question, which puts altogether a different phase upon the whole affair.

## THE OTHER SIDE.

On the 10th ultimo, a meeting between Mr. Wm. F. Parish, the superintendent of the shops in question, and ourself was arranged. We met, and in a most friendly manner reviewed the situation. This meeting lead to an interview with Mr. W. E. Hill, one of the directors of the company. We were cordially received and could not help but remark his gentlemanly bearing and treatment. We talked the matter over calmly, and ascertained from him that not a member of the firm held any animosity or ill-feeling toward the Machinists and Blacksmiths' Union. We soon discovered, however, that some men who were in their employ—and unfortunately members of the Machinists and Blacksmiths' Union—were, in a great measure, responsible for the difficulty which existed between them and our organization. Our members must not feel surprised at the announcement, as we propose to tell the truth "though the heavens fall." We say it openly and above board, that had our Union in Erie expelled two or three turbulent spirits and discountenanced their actions, Messrs. Stearns, Hill & Co. would have had no cause—apparent or real—for proscribing members of our order, and our organization would have saved a

worse than useless expenditure of over \$3,000; besides all this there would have been no parading of men's characters in an unfavorable light before the public. Furthermore, the large number of men who left the shops, and who were as good mechanics and as profitable to their employers as any same number of men that can be found anywhere in the country, were made the victims of the hot-headed and inconsiderate few who caused the difficulty. The great majority of the men who left the shop during the trouble were consistent members of our order, and when they were approached with the alternatives "leave the shop or the Union," they quietly left the shop and the city and secured employment elsewhere. In justice to the members of our order we will say, however, that non-Union men, by their tale-bearing and misrepresenting Union men to employers, contributed more to the turmoil and strife than did even the most turbulent members of the Machinists and Blacksmiths' Union.

Before leaving Mr. Hill we accepted an invitation to meet his co-partners, in the office of their shop, on the following morning, which we did, and as we were somewhat early, we were kindly shown through the extensive

works, by the superintendent, Mr. Wm. F. Parish. After which we were ushered into the office and introduced to Messrs. E. H. Stearns, President, and D. B. Callendar, Secretary, of the company; Messrs. W. E. Hill and W. F. Parish were also present. A complete review of the trouble from beginning to end was had, during the whole of which not the least sign of hard feeling toward the Machinists and Blacksmiths' Union was shown by any of the gentlemen present. Mr. Callendar, the Secretary, spoke in favorable terms of our organization; so did all the other gentlemen. Mr. Stearns' language, as near as we can remember now, was: "I entertain no ill-feeling toward you, your organization, or its members. If any of my employees see fit to connect themselves with your organization, I certainly have no objections. If we employ men they shall be employed for their mechanical ability and the amount of labor they will do for us. We do not care whether they belong to the Union or not, so long as they do not undertake to regulate our business. At present we do not propose to make any promises as to what we may do in the future; it may be that we will prefer Union men to non-Union men." Surely nothing could be fairer than this

expression of Mr. Stearns', and it only remains now for the members of our organization to prove their superiority over non-Union men by attending strictly to their own business, doing their work well, and turning out a fair day's work; and when they admit men as members to inquire well into their mechanical qualifications, as well as their moral characters.

We asked the question concerning the oath they required men to take, before a magistrate, before giving them employment, which excluded all who were members of our order. And we were told that such a thing should never have taken place had not some of the members of our organization made their brags that they would pack their shops, and when they got the firm into a tight place they would "shut down on them."

Taking everything into consideration, we cannot see where the employers were at fault, only in one particular instance, namely, making war upon the Machinists and Blacksmiths' Union when the Union was in no way responsible for the action of the originators of the difficulty in question. But when we consider that a self-constituted committee waited upon Mr. Stearns, and presumed to dictate to him in reference to the running, etc., of

his shop, we do not wonder that he supposed the Union responsible for the action of a certain few of its members. Mr. Stearns met the committee in good faith, and when he learned their mission, which was of a dictatorial nature, as a natural consequence, he refused to treat with them. This is what led him to suppose that our visit to his shop was of a similar nature, and consequently refused to meet us. Looking at the matter from all sides, we cannot censure him severely for his action.

We were further informed that they required no man to take an oath, or sign a contract, of any kind. All men who went to work in their shops were at liberty to use their own judgment in reference to connecting themselves with such associations as they themselves deemed beneficial to them. We informed the gentlemen that we were entirely satisfied with their explanation, and would declare the strike at an end.

Of Mr. Hill we have already spoken, and as but little reference has been made to him heretofore, through the columns of the JOURNAL, we have only to say that he, like his co-partner, Mr. Stearns, has been very much misrepresented; he does not deserve the censure that has been applied to him.

As for Mr. Callendar, upon re-

ceiving an introduction to him, we formed an opinion which, so far, we have had no reason to change. He is a gentleman in every respect; a man who studies the interests of his employees, one whose highest aspirations are to make those who have the good fortune to be employed by him comfortable and happy. Like both Messrs. Stearns and Hill, we do not think that he would wrong any of God's creatures knowingly or willingly. The mechanic has in him a staunch and true friend. All he requires is a faithful day's work and no trouble will arise, at least so far as he is concerned.

Mr. Wm. F. Parish, the Superintendent of the Presque Isle Iron Works, now the "Stearns Manufacturing Company" has been the subject of more severe criticism than any other man connected with the shop under his supervision. It has been universally reported that he was the cause of all the trouble that existed between the Machinists and Blacksmiths' Union and Messrs. Stearns, Hill & Co., which accusations were not only unjust but false, and without the least foundation. He does not deny discharging men on account of their connection with our organization, but this was done in compliance with the wishes and instructions received from his

employers. He could, as a matter of course, do so or not, with the alternatives "obey orders or resign" staring him in the face. But when we consider that the action of certain men led him—like his employers—to believe that the Union was responsible for their sayings and doings, we cannot censure him for what we ourself would have done under similar circumstances. He may have erred in judgment, and he himself made the acknowledgement that sometimes he is a little quick-tempered, and is often sorry for his rashness, so much so that we have known him to go to men and apologize for speaking hastily and out of humor. When this accusation is made against him as a mechanic, or as superintendent of the shop at present under his jurisdiction, all that can be said against him has been said. It is also due him to say that the amicable settlement and friendly relations established between the "Stearns Manufacturing Company" and the Machinists and Blacksmiths' Union, was brought about mainly through his instrumentality. This act upon his part alone commands for him the good-will and friendship of our order throughout the continent.

It may seem strange to many to see one number of the JOURNAL

teeming with sarcasm and severe criticism, directed at a certain party, and then see the very next number retracting what has been said, but when journalistic honor and fairness are taken into consideration there can appear nothing strange in the attitude we have assumed. We would not harm anyone knowingly or without just cause; and should we, in the future have—as we recently had—occasion to bring men beneath the scorching rays of public scrutiny, we shall stand ever ready to make due reparation for any injustice we may do them. We seek but the truth. We intend to deal out impartial justice to both friend and foe. We ask no favors; we court no friendship except from men who are inclined to deal fairly by the toilers of our land. With this platform we go forth to do battle for labor's cause, in the fervent hope of contributing, in a measure at least, toward labor's emancipation. To elevate in the moral, social and intellectual scale the class we represent is our highest ambition and loftiest aspiration, and to this end we court the good-will and invite the co-operation of all who desire the elevation of the working masses. We are always ready to make honorable retraction whenever it can be shown that misstatements

have flown from our pen or that they have been uttered by us from the rostrum. We, therefore, with pleasure announce that Wm. F. Parish is not the man that he has been represented to be; but, on the contrary, we have found him to be a gentleman in every particular. With this retraction we hope to place him before the public with his reputation and character unimpaired.

One word more in reference to Mr. E. H. Stearns. From our investigation and lengthy interview, we are forced to the conclusion that he is not what he was represented to be in the previous number of the *JOURNAL*, but quite to the contrary, a consistent Christian gentleman, and a fair-minded employer. He is a man who will listen to reason at all times; and if his employees have any grievances to complain of by laying the matter before him they will find him ever ready to adjust matters amicably for them.

In reference to the strike, we wish to say, both in justice to our organization and the "Stearns Manufacturing Company," that our organization was in no wise defeated, as the strike could have been carried on, greatly to the detriment of the Company, so long as there was any Machinists and Blacksmiths' Union in existence, as the cost to our members

was only eight cents per week. On the other hand, although the employers were very much inconvenienced, they were by no means defeated or driven to a settlement of the question in dispute. What was done was done voluntarily by both parties. Every sensible man saw that it was merely a suicidal contest, and to continue it could not but be detrimental to all concerned; hence the meeting of the President of the International Union with Messrs. Stearns, Callendar, Hill and Parish, which resulted in an amicable settlement, thus adding further testimony in favor of arbitration as a substitute for strikes. The strike, although it continued for nearly seven weeks, failed to do what arbitration finally accomplished. Through the instrumentality of arbitration both the "Stearns Manufacturing Company" and the Machinists and Blacksmiths' Union were enabled to withdraw honorably from the contest. And now our organization goes forth with the adage inscribed upon its banner: "Peace on earth, and good-will toward men."

♦♦♦

A letter from Brother Charles Wright, who is located at Little Rock, Ark., informs us that he hopes soon to form a Union in that city. May success crown your laudable efforts, Charles.

## CONCERNING STRIKES.

Notwithstanding we have times almost without number defined our position on the question of "strikes," from the rostrum and through the columns of the JOURNAL, we are in receipt of numerous inquiries concerning our attitude in reference to this all-important question. For the benefit of our earnest interrogators, we will once more define the position we hold in relation to this matter. Being, as we are, at the head of one of the most powerful trades' Unions in America many, who know little of the real objects of such associations, are led to suppose that, as they can see no real practical mode of redress for the wrongs and impositions practiced upon those who toil daily for a livelihood except a resort to the suicidal weapon of strikes, we, as an officer of the International Union, favor this practice, which cannot fail to inflict injury to both employers and employees whenever they engage in such a contest.

Now, then, as to our attitude in reference to this question: WE ARE UNALTERABLY AND UNQUALIFIEDLY OPPOSED TO STRIKES. We are opposed to strikes

First, For the reason that we have other and better means within our reach whereby we can

redress our wrongs, without going to war with our employers—men with whom we should always be at peace.

Second, Because where the business of an employer is crippled by and through a strike, the workmen must suffer in a corresponding degree to the injury sustained by their employer.

Third, Because the workmen cannot injure their employer without being injured themselves; and, *vice versa*, the employer cannot oppress his workmen without detriment to himself.

Fourth, Because strikes are the most expensive and clumsy method ever invented for settling disputes between employers and employees.

Fifth, Because a resort to strikes cannot fail to engender hatred and bitter feeling on the part of the workmen toward the employers, and on the part of the employer toward the workmen.

Sixth, We oppose strikes because we believe a board of arbitration to be the only true and just tribunal for a settlement of grievances or disputes that may arise between the employer and employee.

The above is our platform in relation to the important question of strikes; and we desire to place it before the American people. Upon that platform we will stand

or fall. We have seen too much misery, suffering and want entailed, brought about directly through the inconsiderate action of workingmen participating in the ruinous matter of strikes. This mode of redress may be justifiable in the absence of better means to secure a redress of the wrongs to which workingmen are sometimes subjected, but since we have other and better means within our grasp by and through which all we, as workingmen, ask or desire can be secured, we cannot and will not give any aid or countenance to any project or enterprise which tends to mar friendly relations between the employer and the employee. We will work to promote peace and harmony throughout the workshops of our land. Anything we can do to harmonize the interests of the employer and the employee will be most cheerfully done. We desire to so combine and entwine their interests as to make strikes an impossibility. If there be any in our organization who advocate strikes, for them we have no support or sympathy, but kindly advise them to turn their attention in the direction of arbitration, and in this way promote and harmonize, instead of tearing asunder and dividing, the interest of the employer and the employee. Strike not, but arbitrate!

#### LABOR REFORM CONVENTION OF MASSACHUSETTS.

The following letter of the President of the Machinists and Blacksmiths' International Union, in reply to an invitation to attend the Labor Reform Convention of Massachusetts, is a full and free exposition of his opinion concerning the organization of a separate and distinct political party for the accomplishment of the objects for which the workingmen of the United States are organized. We ask for the letter a careful perusal:

EXECUTIVE DEPARTMENT,  
M. AND B. I. U. OF N. A., }  
CLEVELAND, O., Aug. 4, 73.

E. M. CHAMBERLAIN, Esq., *Chairman  
State Central Committee Labor Reform  
Party of Massachusetts:*

Dear Sir—Your kind invitation to attend your convention, which is to take place in Lowell on the 6th inst., is here and duly considered. I was in hopes to be able to be with you, but a press of business at this office makes it utterly impossible for me to be absent for any length of time without inflicting an injury upon our organization. However, my heart and soul are with you in your laudable undertaking.

You say that the object of your convention is to devise some plans whereby you can secure the enactment of a "Ten-Hour Law" in your state, and ask my opinion as to what I deem the best plan whereby to accomplish the object desired. The question comes frankly and from one whose herculean efforts put forth in labor's cause, have stamped him an earnest and consistent worker. I will, therefore, give you my opinion freely and advise you in what I honestly believe to be the best method of speedily securing the passage of an effectual "Ten-Hour Law." We may differ upon minor points; yet, on the whole, I believe in the abstract we will agree.

Every intelligent man must conclude that the conditions of the laboring class can best be ameliorated—under a Republican or Democratic form of government—through legislation. But the best way to secure the needed legislation is not always at the ballot-box. We all know that the ballot is of little consequence unless it bears upon its face the names of men who will honestly reflect the wishes of their constituents. Then, as a matter of course, it becomes our duty to see that the proper names are placed on the ballot we drop in the box if we want to be fairly represented. The proper time of securing the election of men of our choice is certainly not on the election day. Here is where workingmen make a grave mistake. As a general thing they allow political tricksters and wire-pullers to make the nominations; then the poor, blind, deluded slaves to party, hurrah themselves hoarse for Democracy and Republicanism as represented by men whose sympathy does not extend beyond the sound of their ballot as it drops in the box.

However, workingmen have only themselves to blame; they have the remedy in their own hands, but very seldom apply it. We have numerous and powerful workingmen's associations throughout the country, associations that could wield an immense power for good if it was not for the blind stupidity which characterizes so many workingmen. Associations of workingmen with labor's emancipation in view, are everywhere desirable. But when they ignore the necessity of, or refuse to work for, legislative enactments they lose their attractiveness and their existence for good becomes very impotent indeed.

When I speak of legislative enactments for the common good of the laborer, I do not mean to convey the idea that this can best be done through a separate and distinct political party. However much I may desire the organization and perpetuation of such a party, my reasons for not favoring a workingman's party at present are:

Because the time has not yet arrived for the lease to expire which the present political parties hold on the workingmen of the country. You see they are not allowed to vote any but the Republican or Democratic ticket without shamefully deserting the parties which have done so much (?) for them in times gone by.

In view of the utter impossibility of buying up the lease which the present political parties hold on the workingmen, I would suggest the plan of operating through instead of acting independent of them. Although the machinery of the present parties may have become rusty and somewhat the worse for wear, yet I believe it to be the quickest way of securing to the laboring man more time for mental culture, for moral, social and physical improvement.

The great, powerful and only effectual lever through which that all important *desideratum* of the world's workers can be secured to them, is ORGANIZATION—organization, education, intelligent and united action. The scum must first be removed from off their purblind eyes, and they made to see the shining rays of education, the weapon so essential to the elevation of down-trodden labor.

The great mistake made by workingmen generally is that of laying idle and comparatively indifferent to their interest until the political tricksters of both parties have made their nominations and platform of principles to suit themselves; then the poor, blind, deluded slaves to party will go like sheep to the slaughter-pen, and vote the Republican and Democratic ticket straight, without the least regard for consequences. The qualifications and standing of the candidates are seldom taken into consideration; it is sufficient for the majority to know that the candidates are good Democrats or Republicans.

In the meantime workingmen will stand and quarrel over the virtues of their respective parties, when the common run of hungry office seekers have so much sympathy for the laboring man that as soon as the election is over their sympathy could not be seen with a microscope, be it ever so powerful; and yet, strange as it may seem, we see workingmen who prefer to support these same professional office hunters to *bona fide* workingmen—men whose every impulse is in sympathy with those who eat their bread in the sweat of their faces.

Let me say to you in all candor that until the masses of the workingmen of our country become educated—until they reach a higher standard of intelligence yet attained by them—all efforts to organize a workingman's party, capable of accomplishing the reforms desired, will

prove futile, and a waste of time and money to those who embark in the enterprise.

I admit, could we, by some means, or providential agency, persuade workingmen to obtain a divorce from their present political parties, that a successful labor reform party might be a possibility. But when we see so many shameful desertions by workingmen from the very men whom they placed in the field, and whose whole lives have been dedicated to the cause of labor, have we not good and substantial reasons to doubt the practicability, or even the utility, of placing a labor party in the field, until workingmen have reached a higher standard of intelligence—until they become educated to a recognition of their true interests?

A labor party might in time accomplish all we desire; but is such a party practical at present, or even advisable? I think not. I think that the time and money spent in the organization and maintenance of such a party might be more profitably spent in another and better way: My impression is that if we spent one-half of our time that we spend on impracticabilities, say, for instance, in securing the nominations of men whose interests are identical with ours. If we get our men nominated on either or both tickets, it will take less trouble and money than it would take to elect them on an independent ticket.

Again, suppose we could be successful in the election of a goodly number of men of our own class to the legislature of your state on an independent or labor reform ticket, would it not work a positive injury to our cause by arraying all the opposing elements against us when bringing our propositions forward for legal enactment by the legislature? My opinion is that unless we secure a working majority, in both Houses, that the Ten-Hour Law would suffer a postponement in consequence of our operating independent of both existing parties; whereas if we secured the election of our men through either or both parties that there would be less cause for them to oppose us. My opinion is that they, instead of working against us and our measures, would co-operate with us.

You see I am in favor of doing the work in the shortest as well as the cheapest way. I certainly would favor a labor party if it could be made plain to me

that the reforms desired by us at present could be secured as quickly in that way as they could by operating through the present parties.

I am decidedly of the opinion that workingmen can secure the necessary legislation in no quicker way than by attending the caucus meetings and nominating conventions of the present political parties, and see that Republican workingmen are put on the Republican ticket, and that Democratic workingmen are put on the Democratic ticket. Then we need not care which ticket is elected. If workingmen will not do that I am sure it is mere folly to talk of the organization of a separate political party.

I have given you my honest convictions on the question which you propounded. I have nothing in view but the interest of the toiler. To benefit him and ameliorate his condition will always be my earnest desire. The best years of my life have been dedicated to his interest, and by the help of God I shall continue to battle in his cause. Whatever I can do for his elevation with my pen, or from the rostrum, will be most cheerfully done. His interest shall always be kept uppermost in my mind. I know that those who are in the vanguard of labor's grand army have to contend against fearful odds, but if we prove true to ourselves and the men we represent victory will be our reward.

Then let us go to work with renewed energy, and cease not our efforts until the emancipation of labor is proclaimed from every hill-top in the land; and let it not be said in a year hence that the greediness and avariciousness of the capitalists of Massachusetts—the great radiating center of American intelligence—compels workingmen and women to work over eight—not ten—hours per day. Wishing you success, and a hearty God-speed in your noble undertaking,

I remain, fraternally yours,  
JOHN FEHRENBATCH,  
Pres. M. & B. I. U. of N. A.

Three men in the oil regions entered into a covenant not to indulge in the use of intoxicating liquors for one year under a penalty of \$100, except when duck shooting. One of the party has an old drake which he has shot at over five hundred times since the covenant, taking a drink every time, and the drake isn't dead yet, and only a couple of months have passed since the bargain was made. This is a queer country.

**PASSING EVENTS, NEWS, ETC.****New Unions.**

The following Unions have been organized since last reported: No. 15 of Pa., Connellsville, by Deputy President Thomas P. Smyth of No. 8 of Pa.; No. 16 of Pa., Philadelphia, by Special Deputy President W. H. Johnson; No. 14 of Ind., Vincennes, by Deputy President Wm. Saunders of No. 5 of Ind.; No. 17 of Ohio, Zanesville, by Special Deputy President H. W. Cowell.

**Wm. P. Mendenhall.**

We have received a letter from Mr. Mendenhall, in which he ventures an explanation concerning the non-payment of subscription money for the *JOURNAL* to the amount of \$20. He claims to have paid the money in installments after he left Altoona, and went to work at Yeagertown, Pa. He sent a young man who lived at Lewistown, to the post office, at different times, with money to purchase money orders and enclose them in envelopes directed to this office, but which never reached here. William don't know whether the young man kept the money or not, but thinks—if we did not receive it—that he must have kept it. Now, we think it would have been very little trouble for him to have gone to the post office and had the post master look over his books and ascertain whether or not the money orders had been got. We are willing to give William the benefit of his excuse, but we would like to ask: What business had he to take the money he had collected from the men in Altoona to Yeagertown? Or by what authority did he appropriate the money to his own use? Why did he not, like an honest man, send the money directly to this office, as he should have done? However, as he has promised to square up, we hope he will do so at once, and not wait until the October *JOURNAL* is out as he may see some very unpalatable truths therein. William \$20 will do the business. You wrote your letter on the 6th ult. and said "You may look for money any time after Saturday next, our pay day." Saturday has come and gone some time ago, and yet no tidings from you financially. What is the matter?

**Indianapolis Paupers.**

For about ten days, ending Monday, August 25th, the occupants of our sanctum have been considerably annoyed by the presence of two champion spongers and dead beatists, who, for some unknown reason, were compelled to vacate Indianapolis, Indiana, the place they hailed from. They came to Cleveland ostensibly on visit to their friends, which pretensions on their part we are inclined very much to doubt. The individuals we have reference to are no less personages than R. P. Craft, ex-Deputy of M. & B. U. No. 4 of Ind., and R. C. Losey, ex-heavy tragedian of the Academy of Music, Indianapolis, and now a ravaging maniac, and all in consequence of not receiving a letter from his "E—" while exiled. Bob wrote numerous letters to his "dulciana," but failed to extract a reply. The result is that Mr. C. West, Marshal of the Hoosier Capital, must bestir himself to fill the place vacated by his love-struck Deputy. Bob is a fine fellow, but troubled a little with monomania on the question of love. It was laughable, indeed, to see him sloshing over the unabridged work of the great American lexicographer, Noah Webster, for suitable words to soften the stony heart of his heedless "E—." We should have little to say concerning the other pauper and sponge, Dick Craft, had he not, in our absence, ingratiated himself into the good graces of the fighting editor, so much so that four of our best shirts found themselves pressed into service by him. We have no objection to either him or Bob coming here and sponging off of the fighting editor, but when we are called upon to not only feed but clothe Indiana's paupers, we think it high time to enter our protest. We ask our members at Indianapolis to prosecute a claim for us against their municipality; at the same time stipulating that the champion spongers in question will never again visit the "Forest City."

**Correction.**

Bro. Daniel O'Connor, of No. 4 of Mo., wishes us to state that he has not gone to farming, as reported in the last Reporter. He is working at his usual avocation in Little Rock, Ark.

**The Scientific American.**

We have upon several occasions shown up an advertising sheet, published in the city of New York, and mis-labeled the Scientific American. Did we deem the thing worthy of any extended remarks we should again show up its pussillanimity toward the organized mechanics of the country. We admire candor in any paper, but a paper that is too cowardly to strike a blow at trades' Unions without following it up with a supplementary dose of soothing syrup informing workingmen that it is favorable to their cause, etc., does not deserve honorable recognition. The paper in question had something to say recently concerning trades' Unions, but from the frequent use of "trades' Union demagogues," a stereotyped, hackneyed, worn out term, applied to leaders in the labor movement by every little squirt and penny-whistler in the land owned and controlled by capitalists, we are led to the conclusion that the writer of the articles in question must have felt a vacuum about the heart when directing his shafts toward the "trades' Union demagogues." We would really like to see something new in the Scientific American. Advertisements are very good in their places, and form, no doubt, interesting reading matter for those who pay for them; but for those who look over the pages of that paper in search of anything of a scientific nature they form matter of no interest whatever. Therefore, in order to help the editor out of his dilemma and monotonous, stereotyped, silly, patent, twaddle and senseless balderdash about the harangue of the "trades' Union demagogues," we challenge him to a discussion of the question: "The mechanics' right to organize for protection against the encroachments upon their rights by capitalists." We are prepared to show, taking the files of the paper as evidence, that the Scientific American is not only opposed to combinations of workingmen, but that it is committed body and breeches to capital; that while it denounces combinations on the part of workingmen it is too cowardly to denounce the huge swindling corporations which are robbing and plundering the people all over the land. As the

members of our various organizations form a very large proportion of inventors who have heretofore patronized Messrs. Munn & Co. they are anxious to have these gentlemen show their hands, otherwise they will feel dubious in trusting applications for patents to their care. Come, gentlemen, show your colors. What is your opinion of Trades' Unions?

**Extraordinary Inducements to Canvassers.**

One hundred fine gold M. & B. Badges will be given as prizes to canvassers for the JOURNAL. A handsome \$4 fine gold badge will be given for every fifteen yearly paid up subscribers. An extra fine gold badge, with cross-bar and pin attached, worth \$5, will be given for every twenty paid up yearly subscribers. Every member of the organization has now an opportunity to secure one of these handsome emblems of our order with little or no cost to himself. Every person sending in lists of from fifteen to twenty paid up yearly subscribers, in lists of not less than five, will be entitled to a gold badge. Every list must state the prize desired.

**Deserved Promotion.**

The many friends of Bro. E. R. Bryant, who has lately had charge of the machinery of the Rochester Paper Mill Co., will, no doubt, be glad to hear that he was tendered the foremanship of the Kidd Iron Tool Works, and accepted the same. The Kidd Iron Tool Works may congratulate themselves upon securing the services of Mr. Bryant, as he is capable, in every particular, to properly discharge the important duties now devolving upon him. Bro Bryant has held many offices in M. & B. U. No. 7 of N. Y., and is known as a staunch Union man and an A No. 1 mechanic.

**Prize Pictures of the Great Iron Convention.**

During the past month prize pictures of the Albany Convention have been shipped to all entitled to receive them. It may be, however, that one or two have been overlooked; if so we ask that they report to this office immediately, and we will see that they receive their pictures.

**Notice to Employers.**

We receive a great many applications from employers for machinists and blacksmiths, and generally the application is accompanied by the request to send the men immediately. Applicants for men should bear in mind that a statement of the rate of wages paid would greatly facilitate matters in the way of sending men, as every man before leaving for a place of employment wishes to know about the rate of wages paid. If employers will bear this in mind their orders can be filled more readily. We also wish to announce that no charges are attached to orders filled by us for men. The men getting employment, and not the employers, simply pay the expenses incurred.

**Laid Over.**

An able article, entitled "A Square Inch of Iron," from the pen of our esteemed and reputed contributor, J. J. Illingworth, came to hand after the first "form" of the JOURNAL was printed, and, as it cannot appear in its proper place, we have concluded to lay it over for publication in the October number.

We also have a valuable article on gear-cutting, which will appear in our next issue. This article alone is worth more to a machinist or blacksmith than double the price of the JOURNAL subscription. As we print only enough copies to supply regular subscribers, those wishing to secure the next number will have to subscribe and send in their names on or before the 25th of October.

**New Motive Power.**

Those who have observed the rapid disappearance of our forests and the vast quantities of coal annually consumed, have wondered what the people of this country will do, at a not very remote period in the future, when the scarcity of fuel, and the increasing demand for it, cause great advances in prices. In an article, some time since, upon this subject, we referred to the fact that a remedy for the threatened evil would probably be found in the elements—in air and water, and perhaps earth—a cheaper and better fuel and light would be eventually extracted by science from the air and converted to use for all purposes of heat. We referred at that time to certain

quite successful experiments tending to show the possibility of such results, and now something more practical and better adapted to the development of important facts upon this question is about to be tested. A correspondent of the Chicago Tribune thus refers to the proposed experiment: "I have been shown the elements and drawings of an engine to be propelled by the combination of oxygen and hydrogen in the presence of flame, producing expansion, and, of course, explosion, if not under control. This power can be generated at a trifling expense—not to exceed one-fourth that of steam. And, by saving the weight of fuel, and much of the weight of machinery, with greatly increased activity of machinery, the result is a great gain. The momentum acquirable in this way is believed to be such that ships may cross the Atlantic in three days or even in less time. The paddle appliance is also a novelty—simple, but efficient. This power is applicable, equally with steam or water, to any kind of machinery." From experiments hitherto made, there is little doubt but this new propelling agency can be controlled and converted to use for moving machinery. It must be remembered that these experiments are in their infancy, and that the good results which they foreshadow as possible and probable, may not be fully realized without years of effort. It is, however, of inestimable importance to know that such agencies are in existence and susceptible of conversion to the use of man.—Toledo Blade.

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**Barron Steel.**

The Barron steel process for converting articles of cast iron into steel is now being used extensively both in Europe and the United States for the preparation of tools. The cast iron tools to be converted into steel, are first placed in revolving drums, and the rough surface which the castings present as they leave the mould, is thus worn smooth by attrition. They are packed in layers in iron boxes, closely covered with clay, and subjected to the action of oxide of iron or some other decarbonizing agent. After being annealed in these boxes for a period of from three to six days, the tools are brought into the state of malleable iron, and it only remains to convert them into steel. The conversion is effected by exposing them in a large retort in the center of an oven to the action of certain gaseous compounds of carbon. By this means about a ton of iron tools in the retort may be converted into steel in from eight to ten minutes.

## Miscellaneous.

### OVER THE RIVER.

[For the Machinists and Blacksmiths' Journal.]

Brothers, shall we meet in Heaven,  
When this eventful life is o'er;  
When through pain and care and troublle,  
Shall we clasp hands on Canaan's shore?

Shall we traverse that glorious city,  
Where the towers of crystal shine;  
"Streets of gold" and "walls of jasper,"  
Home of Christ the "Living Vine"?

Shall we hear the ransomed singing,  
Heavenly praises to their King,  
Till e'en Heaven is filled with music  
And the angelic arches ring?

Shall we meet our friends and loved ones,  
Torn from us and gone before,  
Shall we see their happy faces,  
On that bright and heavenly shore?

Yes we may by true repentance,  
And through faith in Jesus slain,  
Enter the celestial mansions,  
And be free from sin and pain.

May we trust in Christ the Saviour,  
Through his blood and merit gain  
Entrance through the heavenly portal,  
And with saints forever reigu.

JOTHAM H. ORR.

New Haven, July, 1873.

### THE BROWN HAND.

A hand of brawn, with muscles of steel,  
The throat of a foe to grasp;  
A hand that is loving, bold and leal,  
And free for friendly clasp;  
A hand to give and a hand to gain,  
To steady the plow, to reap the grain,  
Or to guide the ship o'er the raging main.

An honest hand for a friend to hold  
With a grip both fond and true;  
A hand that is mightier far than gold,  
And ever ready to do;  
A hand for the weak to grasp at need,  
That often toils for a scanty meed,  
And manfully works for a noble deed.

A hand that is blackeued with labor's stain,  
And bold in the cause of right;  
A tender hand by the couch of pain,  
Its touch by love made light;  
A hand for woman to loving cling,  
To make on the anvil the iron ring,  
To level a throne or crown a king.

### THEM BONES.

Hi Slim Jo and Hung Jim Le  
Lived in the kingdom across the sea—  
The "Flowery" land of the great Chinee—  
Whence cometh our silk, our rice and tea.  
Hung Jim Le and Hi Slim Jo  
Were the bosomest friends some years ago,  
In the beautiful town of Bing Gam Bo,  
Where they have no winter, or frost, or snow.

But the times grew dull, and trade so light  
That it kept them struggling with all their might  
To meet their notes and to live aright;  
So, Hi and Hung, one starry night,  
Counseled together about this state  
Of things, and resolved to emigrate  
To a land where gold would accumulate;  
And they sailed, next day, for the Golden Gate.

But "John" never leaves his home to stay  
In a foreign land a single day  
Beyond such period as he may  
Collect some wealth; then he sails away  
To the "Flowery Kingdom" over the sea;  
And even his bones, if he die, must be  
Gathered together, solemnly,  
And carried back to the land of tea.

So, Hung Jim Le and Hi Slim Jo  
Agreed, and swore by their god, "Jum Bo,"  
That should either one "turn up his toe"  
(A pleasant expression for "died," you know,)  
In the land of big trees—the land of gold—  
The other should gather from the mold  
The bones of his brother, thus stiff and cold,  
And send them back to his home of old.

Hi Slim Jo and Hung Jim Le,  
Laden with opium, rice and tea,  
Voyaged safely across the sea,  
And entered the land of the "brave and free."  
Both went to their labors with a will,  
Hung ironed and washed people's clothes to fill  
His purse; but Hi had a chemist's skill,  
And he worked out of town in a powder-mill.

It happened, one morning, Hi Slim Jo  
Very unluckily struck his toe  
On a nitro-glycerine can; and oh!  
The ruin was dreadful—the shock also  
(Like that of an earthquake)—and the sound  
Was felt and heard many miles around;  
And all of that mill that was ever found  
Was a very respectable hole in the ground.

And alas! disconsolate Hung Jim Le  
Thought of his oath in the land of tea,  
Where he promised Hi that his bones should be  
Carefully carried across the sea!  
And now he raves in demented tones,  
Wanders about, and mutters, and moans,  
Groping through bushes, and sand, and stones,  
Hunting unceasingly for "them bones!"

**The Industrial Congress.**

At a meeting of the Industrial Congress, held recently at Cleveland, Ohio, a "platform" of principles, or rather, declarations, was adopted, which is rather more compact in its style, and considerate in the treatment of the proper subjects of the Congress, than "platforms" usually are. It declares the first object of the Industrial Congress in terms as follows: "To bring within the folds of the organization every department of productive industry, making knowledge a standpoint for action, and industrial, moral and social worth—not wealth—the true standard of individual and national greatness." This is well said, but is rather too general and remote to be of immediate practical value. The annunciation of the second object, or group of objects, is put in terms a great deal more pointed and direct to the purpose. This is designed "To secure to the toiler an equal share of the wealth which he helps to create; more of the leisure that rightly belongs to him; more society advantages; more of the benefits, privileges and emoluments of the world; in a word, all those rights and privileges necessary to make him capable of enjoying, appreciating, defending and perpetuating the blessings of republican institutions." There is evidence in the first part of this paragraph of that thought and apt choice of words which betokens the disciplined mind and hand. So much for the declared objects of the Congress, which are of a character that leaves but little room for any one to fairly find fault with. The announcement of the objects is followed by certain demands upon the National and State Governments, among which are the establishment of bureaus of labor statistics, the reservation of public lands for actual settlers, "and not another acre for railroads or speculators;" the adoption of measures providing for the health and safety of persons engaged in manufacturing or building pursuits, the reduction of the hours of labor to eight hours per day, the abrogation of all laws that do not bear equally on capital and labor, the prohibition of the importation of servile races, the discontinuance of the system of contract labor in prisons and of "subsidies" to steamships bringing servile races to this country, the enactment and enforcement of equitable apprentice laws, and "the substitution of arbitration for strikes whenever employers and employees are willing to meet on equitable grounds."

Altogether this is the best specimen of a "platform" we have seen for a good while—best in its terse expression—best in its clearness and force—best in its freedom from inflated nonsense, mere "bunkum" or artful demagogical appeals to prejudice or passion. Some of the demands may be debatable,

none of them can be stigmatized as uncasonable, and most of them are perfectly right. Bureaus of Labor Statistics are already established in a number of States, and our own among the number. They ought to be established in all, for there can be no intelligent legislation touching the industrial interests or pursuits in any way without the aid of the most complete array of the statistics of labor. These should include everything relating to production and consumption, quantities, qualities, varieties, and values of products; the numbers of working people in every division and sub-division of employment; the numbers of skilled and unskilled persons unemployed, or employed in some other calling than that in which they are skilled; the rates of wages and average earnings throughout the year; the amount of the necessities, comforts and beneficial enjoyments of life, their wages or earnings will buy; the possible or reasonable surplus that can be laid by for sickness or misfortune, or old age, or for the purchase of a homestead; the ratio of apprentices or learners in skilled employments who are to supply artisans, tradesmen, and operatives for the future, and other kindred facts and figures. Without these, as has been already observed, there can be no intelligent legislation or regulation upon the most important affairs of life. As to the preservation of the public lands "and not another acre for railroads or speculators," there can be no reasonable doubt that nearly the whole mass of the industrious people of the country are in accord with the Industrial Congress. With reference to the contract system of prison labor, which sells the labor of the prisoners by contract, it has been productive of a number of bad results, frequently pointed out in this journal. Our Eastern Penitentiary system is vastly preferable to it. The importation of servile (Chinese) labor presents more difficulty; but, for the present, the consideration of that subject is somewhat hampered by the existence of treaties with the Chinese government. On the question of abrogating all laws which bear unequally upon capital and labor, there can be but little room for a divided public sentiment, if such laws were clearly and specifically pointed out. The eight-hour system is, of course, a part of the debatable ground, but the support given by the platform to the revival and enforcement of the apprenticeship system, and the establishment of arbitration as a substitute for strikes cannot fail of endorsement by an almost unanimous voice.

If the annual meetings of the Industrial Congress continue to make progress at the rate this last one shows, and will maintain the attitude of sound sense and moderation exhibited by this one in its platform, they will

command far more respect and exert a wider influence than has been their fortune in their antecedent history.—Philadelphia Ledger.

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“The Incubus.”

In the Journal for last month we felt called upon to notice the action of the head of a large labor organization known as the Locomotive Engineers. We denounced his action in two cases that had become public property, by almost the entire press of the country taking them up and discoursing thereon. We did not expect that our remarks would altogether please the empty-head, but we scarcely expected he would, over his own name, denounce a statement as a “deliberate lie” that he had previously, over his signature, admitted the correctness of, through the columns of his journal. We stated that “he went so far as to hand to this (Railway) association the manual of the engineers, containing their secret work.” This he denounces as a lie, so we will give his exact words published in his journal, over his signature. Perhaps they are not the truth: we would not like to vouch for anything as being true over that signature, after this evidence of failing mind.

In the Locomotive Engineers’ Journal for June, this “G. C. E.” states that he went to New York, was admitted to the meeting of the Railway Association, and said—

“That they sought an interview with the association to try and do away with some prejudices which he feared existed against the Brotherhood of Locomotive Engineers on account of certain troubles that had occurred in certain places.

“Mr. Wilson hoped that if the association sustained them they would soon be able to introduce important reforms, such as making a provision that every member must sign the total abstinence pledge.

“It was supposed they had some secret arrangement which they did not wish known. They had heretofore had private matters, but they were hardly secret. Their little manual, which the speaker (the G. C. E.), held, contained everything of a private nature, and he was willing that the (Railway) association should examine it.”

Where does the “infamous lie” come in?

The question is, was the manual submitted to the Railway Association? In the June Locomotive Engineers’ Journal the “chief” says he is willing to hand it over, and did read extracts from it. In his personal letter to ourself, he says such a statement is an infamous lie. We accept the apology. He also denounces our statement that a division

of the Locomotive Engineers was suspended for refusing to work with an improper character. We suppose the next denial will be that the division was ever suspended. From the various statements made, our opinion is that he did not know why he suspended it. One fact has become established—that he did not visit the division to ascertain what was the grievance; and another fact is that the division was suspended on the say-so of the railroad officials; and to this day he has refused through his journal to permit any statement to appear from the members of the suspended division, although such statements have been sent him, with urgent requests for publication. So we say again, the trouble was caused by the men declining to work with a man whom they claim to be worthless, and for this reason the division was suspended.

The “G. C. E.” says his action is sustained by the great body of the Brotherhood. Why? Because he takes good care they shall never know the facts. He will publish nothing bearing on the case unless it flatters him and denounces the men who are denied a hearing. Finis!—Iron Molders’ Journal.

• • •  
Rather contradictory—Gay’s grave.

“Weight for the wagon,” sang the fat lady.

A woman who tells fortunes from a tea-cup is a saucerist.

Captain Jack is said to have asked to be tried by a jury of Indians.

A Lancaster, Pa., undertaker advertises: “Get your holiday coffins of J. Waterhouse.”

A Scranton household is enjoying an era of peace. The lady of the house put her tongue on a flat-iron to see if it was hot.

“Where are the men of ‘76?” shouted a stump-orator. “Dead,” responded a sad-looking man in the middle aisle.

When Shakespeare’s mother wished him to confess a theft, what distinguished character did she hold up before him?—William Tell.

It is a remarkable fact that the moment a woman writes a letter, she is frantic to put it in the post-office, although she may have been putting off the writing for six months.

A Portland man caught fishing for trout on another man’s land the other day, completely silenced the owner, who remonstrated, with the majestic answer: “Who wants to catch your trout? I am only trying to drown this worm.”

**One Hundred Miles an Hour.**

The highest railway speeds in the world are attained in England, and the highest railway speed in England is attained on the Great Western Railway, and this speed may be taken roundly as fifty miles an hour. There is a tradition in existence that Brunel once travelled from Swindon to London at eighty miles an hour; but we have never been able to obtain a shadow of proof that this speed has been reached under any circumstances or at any time whatever on a railway. Mr. Stirling has run with one of his great outside cylinder express engines and a train of sixteen carriages at seventy miles an hour, on the Great Northern, on a level or with a slightly falling gradient; and we know that the Yarmouth express, on the Great Eastern, sometimes has reached a speed of sixty-four miles an hour down the Brentwood bank. On two occasions, some years ago in Ireland, we ran fourteen miles in sixteen minutes with a powerful engine and a train of but two carriages. Much of the run was done at over 65 miles per hour. On the Boston and Albany road, United States, the 54 miles between Springfield and Worcester, were run by an engine with 16 inches cylinder, 22 inches stroke, and 6½ feet driving wheel, in fifty eight minutes. Much of the run was done at nearly seventy miles an hour. On a first-class line there can be no question, therefore, but that a speed of sixty-five to seventy miles an hour may be available with safety. We believe that it would be possible to lay permanent way so well, and to maintain it in such excellent order, that trains might travel on it with perfect safety at 100 miles an hour. Miles upon miles of such tract are to be found now on most of our great main lines, but it is not to be disputed that nowhere can 100 consecutive miles of permanent way in perfection be found; and as a chain is no stronger than its weakest link, so a few hundred yards of bad track would spoil for the purpose of traveling 100 miles an hour a whole line. It would not be impossible, however, to maintain a line of such rails from London to Liverpool or York. The really important question is, given the line and the carriages fit for it, what shall the engine be like, and is it possible to construct an engine at all which, with a moderately heavy train, will attain and maintain a velocity of 100 miles an hour, on a line with no grade heavier than, say, 1 in 300. The first points to be settled are, how much power can a locomotive of a given size develope, and how much power shall we require to haul a train which will suffice to

satisfy the demand of that portion of the public wishing to travel at 100 miles an hour. At 60 miles an hour on an ordinary line, and making due allowance for contingencies, the resistance to be overcome cannot, according to experiments carefully carried out both in France and in this country, be much under 40 lbs. per ton. At 30 miles an hour the resistance is about 20 lbs. per ton; at 47 miles an hour the resistance reaches 32.5 lbs. If the resistance goes on increasing in proportion, then the resistance at 100 miles an hour cannot be less than 75 lbs. per ton; but it may be very much more, and it would not, we think, be safe to take it at less than 120 lbs. per ton. Now a speed of 100 miles an hour is 146.5, or in round numbers, 146 feet per second, or 8,800 feet per minute. This multiplied by 120 and divided by 33,000, gives, say, 32 horse-power. Therefore each ton moved at 100 miles an hour will represent 32 horse-power. The "Great Britain" broad gauge Great Western, with its tender, in running order, represents a weight of about 64 tons, and a heating surface of 2,100 square feet. This engine has indicated over 800 horse-power. To run such a machine and a train weighing 35 tons, or a gross load of 99, or, say, in round numbers, 100 tons, at 100 miles an hour, would require 100 by 32, or 3,200 horse-power, or just four times more power than the most powerful high-speed locomotive that has ever been built could exert. To run the engine, weighing 38 tons, alone would require a power of 1,216 horses, assuming that the engine resistance was identical with that of a carriage. These figures suffice to prove that it is absolutely impossible to obtain a speed of 100 miles an hour on a railway if the resistance is anything like 120 lbs. per ton.

It is little more than waste of time to discuss any other question connected with the matter, such as safety and working expenses, until it has been settled whether it is or is not possible so far to reduce resistance that it will become possible to construct an engine of sufficient power to fulfil the intended purpose. If it can be shown that the resistance could be brought much below 120 lbs. per ton, then it may be possible to attain a velocity of 100 miles per hour.—London Engineer.

Mrs. Mary J. Hartwell, of Columbus, O., heard a voice say the other night: "Your brother William is dead," and she awoke the old man with her screams. A letter came next day from Dayton announcing that her brother was well and had a paving contract.

**Electricity from Machine Belts.**

That electricity may be drawn in vivid sparks from an ordinary belt, such as is used in mills and factories, when it is in motion, is so well known that it has ceased to be commented upon. The sources of electricity are very numerous. A piece of woolen rubbed on glass; a jet of hot steam playing upon iron; any rapid friction,—will more or less develop it. In the case of belting, it is brought out by the friction of the wheel over the shaft, or other bearings; and the belt, covered with grease and dirt, acts as the conductor that gathers the electricity in sufficient quantities to make it visible in sparks or audible by its cracking, snapping noise. On approaching the moving belt the hair will often rise like a nimbus round the head; and a bright spark may be extracted by exposing a knuckle to the belt. A Leyden jar such as is used in electrical experiments, may be used to collect the sparks, and from it a spark may be drawn that will light the gas, fire powder, or burn a mill down. In warm, close rooms, it may often happen that the spark will be powerful enough to produce flame without the Leyden jar and without any condensation of the spark except such as the belt itself may give.

How many people have been unjustly accused of incendiarism, and how many times pious stupidity has blamed Providence for the conflagration that has ruined a whole village, may never be known; nor shall we know how many of these seemingly inexplicable fires have sprung from an oily belt, that with a single spark fired the heap of dusty pine slats used to support hurdles, or the varnished hurdles themselves, covered with cotton or worsted line surrounding it. How often do we read that "the fire started in the picker-room," with the vague supposition that a stray nail or broken bolt (?) must have got in the machinery, and by friction given a spark that fired the dusty, lint-laden wood work. This might happen; yet intelligent observers are now more inclined to lay the blame on the swift-fan belt that flashed an electric spark into the hot, dust-charged air, and produced an explosion similar to that produced some times in flour mills. We might pause here to remark, that perhaps these strange flour-mill explosions originate from the same cause. We can now only sum up the general proposition that the development of electricity by belts is one of the prime causes of fires in mills, factories, and other places where they are used.

We may now examine the circumstances most favorable for creating a fire from electric sparks. Nearness to the belt comes first; the dry wood, or other inflammable substance must be quite near the belt to be fired. The spark can only leap a few inches, and if every dan-

gerous substance is kept three feet from the belt there is no danger. Heated air will in time dry wood work so thoroughly that it will be reduced to mere "punk," that will flame at the slightest provocation. The stowing away of wooden tools, slats, etc., on a high shelf near a belt, where they are for weeks untouched—coated with lint and dust from the mill—will often produce all the conditions of a mysterious fire. Dust, if in sufficient quantities, is admirably adapted to convey fire and if suddenly stirred up and set afloat in the air, will burn with an explosive flash, like so much gun cotton.

The remedy for all this is simply to keep inflammable substances away from belts; to ventilate a factory so that high temperature and excessive deposits of dust may be prevented. As is well known, a rounded polished surface will draw out a spark from a belt, when a sharp point will draw off the electricity in silence. This naturally suggests the one thing that should be applied to all belts, in whatever situations—a suitable conductor. A bar of iron, or a light metallic frame, armed with a row of sharp points, placed near the belt, would absorb in silence all the electricity, and if connected with an ordinary lightning rod, or with the water pipes, would lead it away in perfect safety. This is so very simple, so cheaply and quickly applied, that it is a matter of surprise that mill owners have not used it, and that insurance companies have not insisted in their policies that they should apply it to every belt in the mill.—*Boston Journal of Commerce.*

**The Work of a Circular Saw.**

Ninety thousand feet of lumber were recently sawn at the mill of John McEwan, Bay City, Michigan, in thirty-four and one-half hours, besides slabbing for a gang, with two sets of cutting teeth, thirty-six in each set, without sharpening in any way, each tooth cutting more than twelve hundred feet of lumber. The saw never made an imperfect run, and the lumber was sawn much smoother than by any other method. The saw in question is five and a half feet in diameter and number seven gauge. This, in all probability, is the greatest feat ever performed with a saw with the same number of cutting points without sharpening in any way, so says the *Lumberman's Gazette*. This saw is provided with J. E. Emerson's improved bits or teeth. Their points are alleged to be tempered so hard that they will cut glass; and they weigh less than one-sixth of an ounce. The saw is a novelty in its way, very simple in construction, the bits being changed in about five to eight minutes and never working loose. The saw cuts six inches to each revolution, dropping from six to eight boards per minute.

**A Lunatic on a Locomotive.**

We copy the following from the Charleston (S. C.) News of August 14th: Much excitement was caused at the yard of the South Carolina Railroad, yesterday morning, by the eccentric freaks of a demented boy. It seems that the engine Gourdin, which usually carries the Summerville train, was engaged in shifting some cars in the lower yard. About half past eleven o'clock the engineer and fireman left the engine near the corner of Mary Street, and during their absence a white boy named Luke O'Brien, who, since an attack of typhoid fever some years ago, has never been of sound mind, came and jumped aboard. O'Brien, who is a son of one of the employees of the road, had been in the habit of hanging round the railroad yards long enough to pick up a tolerably accurate idea of the mechanism of a locomotive. Being on the engine and seeing no one near, save another boy who was with him, he concluded to take a ride, and at once opened the throttle valve to its greatest extent. His companion jumped off as the engine started, and in a few moments the "Gourdin" went rushing up the track at the rate of thirty or forty miles an hour.

At each crossing O'Brien blew the whistle, and people in amazement and wonder gazed upon the flying locomotive. In the upper yard a shifting engine was taking in a surpyle of water, and the engineer seeing the Gourdin approaching at break-neck speed and suspecting that there was something wrong, threw open the valve of his engine, taking the precaution at the same time to open the cold water supply pump, and then jumped from her. The shifter immediately started in the same direction up the road, followed closely by the Gourdin, both engines going at lightning speed. A hand car on the same track, loaded with railroad iron, was demolished by the Gourdin, and the collision had the effect of bending the cattle guard of the locomotive under one of its front wheels and causing it to act as a kind of brake. As soon as possible another locomotive was procured, and some of the officers of the road started in pursuit of the runaway engines. They were overtaken near the four mile curve, both engines having cooled off and being at a standstill.

Upon approaching the Gourdin O'Brien was seen engaged in oiling the machinery with a view, probably, of making another start; but, upon observing the approach of the pursuers, he made for the woods with the evident intention of escaping. He was pursued, overtaken and brought back to the city. The prompt action of the engineer of the shifting engine in opening the valve of his engine and turning on the water pump was the means of preventing a collision which might have damaged both locomotives seriously. As it was,

the damage was very slight, and both engines were brought back to the city at about 1 o'clock. The engineer and fireman of the Gourdin have been suspended until the matter can be fully investigated.

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**Economy.**

Again and again we urge upon all young men, who are just starting in life, to make it an invariable rule to lay aside a certain proportion of their income, whatever that income may be. Extravagant expenditures occasion a very large part of the sufferings of a great majority of people. And extravagance is wholly a relative term. What is not at all extravagant for one person may be very extravagant for another. Expenditures—no matter how small in themselves they may be—are always extravagant when they come fully up to the entire amount of a person's whole income.

The mode of living is almost entirely a matter of habit. It is just as easy to get on with three-fourths of your income—whatever the amount of it may be—as on the whole of it, if you only think so, and restrict your expenditures accordingly. The thousand inconveniences of debt, embarrassment, and dependence may all be avoided by a firm and undeviating adherence to this rule.

One great aid in pursuing the course which we have recommended, will be found in keeping an accurate account of all receipts and expenditures. By frequent reference to this you will see just what you can afford to expend, without encroaching on your rule; and you will also see what of your expenditures you can most conveniently curtail, or cut off entirely.

There is a great deal, too, in reflection and foresight, in the expenditure of your money. It is a very common remark that one person will make the same amount go twice as far as another. This is owing to the employment of greater prudence and judgment in buying. Almost any amount of money can be thrown away, and scarcely anything obtained for it, by a thoughtless, careless spendthrift.

We despise skinflints. But economy and meanness are by no means identical. On the contrary, as it is easy for any one to see, an unselfish, judicious economy—a wise saving—furnishes the means not only of independence, but of benevolence and generosity also.

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The old gentleman who put his postal card in a stamped enveloped is matched by an Omaha man who has his money orders sent by registered letter.

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The success of the balloon experiment, now on the carpet, will prove whether or not it is wise to cross the Atlantic.

**Chemistry of Steel.**

The combination of iron with carbon or other elements of that nature, by which tempered steel is formed, is attributed by that eminent chemist, M. Caron, to the sudden shrinking of the mass, which he considers analogous to the instantaneous compression produced by hammering. In illustration of this point, he found that by hammering a bar of iron heated to a bright redness, on an anvil covered with powdered charcoal the face of the bar in contact with the charcoal was, in spots, converted into steel, and made capable of resisting the file. His researches also confirm the results of previous experiments, namely, that the density of steel is decreased to an appreciable extent by tempering.

According to Mr. Mallet, an English metallurgist of much note, the very quality that chiefly recommends steel is the one most difficult to determine, and the most dangerous if absent. One great source of imperfection in steel is the injuries which it is liable to sustain in the process of manufacture. Thus, when a bar or plate gets a hammer blow while hot, or anything like a dent, or sustains any concussion which causes a sudden change of dimension, however minute, such bar or plate, in most cases, is certain to give way at the point of concussion on receiving a strain much less than would break the bar elsewhere. Anything, also, in the nature of a superficial injury to a plate, is much more serious in its effects on steel than on iron.

**Iron Railroad Ties.**

The diminution of timber in this country, in consequence of the uses to which wood is devoted, has for a long time been a subject of comment and regret upon the part of those philosophers who look ahead of the time. They have expressed fear that the decrease in the amount of timber available for use will become a serious matter to the people of the United States in a few years. Besides buildings, ships, furniture, etc., railroads, and mines need the use of large quantities of timber which they must have. The railroad ties in this country in use are estimated to amount to over 150,000,000 of feet. It is believed that an acre of woodland of the quality of trees used in the making of ties will not yield more than 200 ties. It required 750,000 acres of woodland to produce the number of railroad ties now in use. In five years this stock will have to be renewed, and there will be added the heavy amounts of ties necessary for the building of new roads. Thus it will be seen that railroads themselves are serious despoilers of the timber crop. It may be worthy of inquiry whether iron or some metal could not be substituted in the building of railroads in place of the wooden ties.

**An Astronomer Dreadfully Sold.**

They say that the chief astronomer at the Washington Observatory was dreadfully sold a few days ago. A wicked boy, whose Sunday School experience seems only to have made him more depraved, caught a fire-fly, and stuck it, with the aid of some mucilage, in the centre of the largest lens in the telescope. That night, when the astronomer went to work, he perceived a blaze of light apparently in the heavens, and what amazed him more was that it would give a couple of spurts and then die out, only to burst forth in a second or two. He examined it carefully for a few moments, and then began to do sums to discover where in the Heavens that extraordinary star was placed. He thought he found the locality, and the next morning he telegraphed all over the universe that he had discovered a new and remarkable star of the third magnitude in Orion. In a day or two all the astronomers in Europe and America were studying Orion, and they gazed at it for hours until they were mad, and then they began to telegraph to the man in Washington to know what he meant. The discoverer took another look and found that the new star had moved about eighteen billion miles in twenty-four hours, and upon examining it closely he was alarmed to perceive that it had legs! When he went on the dome, the next morning, to polish up his glass, he found the lightning-bug. People down at Alexandria, seven miles distant, heard part of the swearing, and they say he infused into it much whole-souled sincerity and vigorous energy. The bills for telegraph dispatches amounted to \$2,600, and now the astronomer wants to find the boy. He wishes to consult with him about something.—Max Adeler.

**Engines at the Exposition.**

A correspondent of an Eastern journal writing from Vienna, says that in looking through the mechanical part of the Exposition, he was struck with the poverty of new ideas, and with the extent to which the continent has borrowed from America. Laying aside the telegraph and the sewing machine, says the correspondent, which are so conspicuously illustrated here, there is the Corliss engine. "I have not yet attempted to count the number of literal copies of this engine, differing only in the coarseness of finish and ugly form of details from what we see at home; but among the representatives of the different continental nations it must be quite considerable, and when we add to it engines governed by the same principle, in which a little attempt has been made to originate a new form of detail, the sum would cover nearly half of all the engines exhibited.

**Backwoods Genius.**

A caveat was recently filed in the Patent Office at Washington for a new motive power, which, in the opinion of experienced engineers and scientific gentlemen, will not only supplant the present steam engines, but largely increase the uses to which machinery can be applied. Strange to say, this invention is the product of a boy but 18 years of age, who was born and reared in the backwoods of Oregon.

Frank C. Crouch is the name of the young genius. His father settled on a farm in Douglas county over twenty years ago, and the only educational advantages enjoyed by the young man, were those afforded by the country school. At a very early age he demonstrated a wonderful ingenuity in the construction of wind mills and water wheels. Natural philosophy and chemistry were his favorite studies, and not only faithfully followed in school, but fairly reveled in out of school hours.

Up to four years ago he had never seen a telegraphic instrument. Upon his return home he constructed an instrument, made a battery, and in a rude way could telegraph with it.—He came near losing his life at this period, from the strength of the battery which he had constructed, receiving a shock which laid him up for a month. In this connection it may be stated that this young man has perfected a system whereby messages may be sent and received on board a train of cars, whether standing still or moving at the rate of fifty miles an hour. This system renders collisions impossible, and greatly reduces the chances of accidents of all kinds. It has been tested on twelve miles of road, and found to work like a charm.

Another of his inventions, from which his friends and practical machinists expect great results, is a self-regulating water-feed to be applied to boilers. The great majority of explosions are caused by the water getting low through the carelessness of engineers. By this arrangement the water in the boiler will always be kept at a certain height, rendering explosions impossible, requiring no attention from the engineer, and dispensing with water-gauges.

Among the inventions to which this young man has applied his attention,

the one which he was most desirous of bringing before the public was his new steam-engine.

The merit claimed for this new engine is that by it steam is converted into a wonderfully expansive gas, by being super-heated in combination with air, thus giving to a comparatively small engine great power. By this arrangement the great obstacle which has prevented the application of machinery to many purposes will be overcome, and the steam carriage for common roads made practical. A great saving in fuel, as well as weight, is also secured by the invention of young Crouch. The engine and boiler are combined, and an engine of forty-six horse-power will not take up a space of six feet square.—San Francisco Chronicle.

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**Gotlieb Scheerer's Little Joke.**

There is an anecdote of Gotlieb Scheerer, who, twelve years ago, was an active Philadelphia politician, and Vice-President Dallas, which has only just got into print. Some thirty years ago Mr. Dallas was counsel in a case in Philadelphia, and Mr. Scheerer was called in as a witness. The following questions were put by Mr. Dallas;

"Mr. Scheerer, were you in Harrisburg last June?"

"Last June did you say, Mr. Dallas?"

"Yes, last June; don't repeat my question, but answer it."

After some minutes of study the answer came:

"No, Mr. Dallas, I was not in Harrisburg last June!"

"Were you in Harrisburg last July?"

He reflected again and slowly said, "No, Mr. Dallas, I was not in Harrisburg in July."

"Were you there in August Mr. Scheerer?"

"No, Mr. Dallas, I was not there in August."

"Were you there in September?"

Here Mr. Scheerer reflected longer than before, and replied: "No, Mr. Dallas, I was not in Harrisburg in September."

Mr. Dallas being tired of this barren result, and raising his voice said:

"Mr. Scheerer, will you tell the court when you were in Harrisburg?"

"Mr. Dallas," said Mr. Scheerer, "I never was in Harrisburg in my life."

The court, the audience and Gotlieb Scheerer enjoyed the joke, but Mr. Dallas did not heartily partake of the merriment created.

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People who are always wanting something new, should try neuralgia.

## General Correspondence.

We do not hold ourselves responsible for the opinions of our correspondents.

Correspondents will please send in their manuscripts on or before the 12th of each month, so as to avoid being crowded out.

In order to insure insertion, all letters intended for publication, must be accompanied by the full name of the writer, not necessarily for publication, but as a guarantee of the good faith of the writer.

### Sunday Reading for the G. C. E.

HAMILTON, O., August, 1873.

MR. EDITOR—G. C. E. Wilson, in his Journal for April, 1873, makes report of the strike of the locomotive engineers of Moberly Division, No. 86. He says :

"On the 27th day of February, 1873, the members of Moberly Division, No. 86, of the Brotherhood of Locomotive Engineers sent a note to Mr. Smith, the General Superintendent of Machinery, asking him to remove one Mr. Chapin, who had been employed as an engineer. The reason assigned was his bad character, and his not being a fit associate."

One of the evidences of bad character alleged was drunkenness and another was incapacity; there were others, not necessary to mention here; but, the worse the character of the obnoxious Chapin, the greater was the reason and right for asking his removal. In the same number of the Journal G. C. E. Wilson says that "the strike grew out of a refusal to discharge Mr. Chapin." The charter of the Division was suspended as a punishment for making the strike, and in the edict of suspension G. C. E. Wilson says that the Division must send in the names of "such of their members as favored a demand being made upon the railroad company for the removal of Chapin." This history, given and endorsed by G. C. E. Wilson, is to be found on pages 168, 169, 170 and 171, of the April number, and if anybody is responsible for the charge that the members of Moberly Division had their charter suspended for refusing to work with a drunken engineer, it is G. C. E. Wilson himself. If the charge of drunkenness was not the only charge, so much the worse for the G. C. E.; for, the worse the character of the man Chapin, the greater the excuse for striking; and the better his character, the smaller the excuse. If the G. C. E. suspended the charter, because the members of that Division made a "disgraceful strike," he must contend that Chapin's character was not bad enough to warrant the demand for his discharge.

The last number of the Journal contains an article, in which G. C. E. Wilson gets off the following :

"Fehrenbatch, editor of the Machinists and Blacksmiths' Journal, Foran, editor of the Coopers' Journal, and Saffin, editor of the Iron Molders' Journal, have all tried their utmost to injure us. They do not hesitate to print a deliberate *LIE*, and after being informed of their error, they still keep on reiterating that the charter of Division 86 was suspended on account of the members objecting to work with a 'drunken engineer.'"

Now, if these several editors, thus charged with reiterating a lie, have simply repeated what G. C. E. Wilson officially reported and published for truth, who is responsible? Those editors relied on Wilson's *INVESTIGATION* and report, and that report, beyond all cavil, said that the strike grew out of a demand for the discharge of an engineer on account of his bad character, and his not being a fit associate. Who is the *LIAR*, immaculate and infallible Charles?

I have read, as thousands have, the report of the proceedings of the Industrial Congress, held in Cleveland last month. I am impressed, as are tens of thousands, with the quiet dignity with which living truths are set forth in the platform of principles there adopted. Not a word or sentence would I expunge or amend. There is not a resolution but stands above all true criticism or complaint. The workingmen in that Congress have astonished the world by an exhibition of knowledge and true statesmanship, and a prudence and dignity heretofore considered strangers to the toilers. In my heart I thank God for that convention and its imperishable results. I rejoice with the hard-fisted producers of the world, at the gigantic strides of progress made within the past quarter of a century, and hopefully look forward to a speedy coming of the time when those who produce the wealth of the land shall have their just share of it, with more of the leisure that rightly belongs to them, and wealth shall not be the standard of moral or social worth.

But, in the midst of my rejoicing, I am held back by the consciousness that the branch of industry of which I am but an humble member had no voice in the great Congress of Workers; and I regret exceedingly, as do many of my brothers of the foot-board, that the G. C. E. of the B. of L. E. felt it his duty to hold aloof from that convention. I knew, and every member of the Brotherhood knew, that that Congress had been called, and we anxiously hoped that our chief executive officer would see to it that we were fairly represented there. We thought that the workingmen had a right to know and feel that they had our sympathy in all things affecting labor, and we closely watched our own Journal with the hope of finding our thoughts and wishes represented. Judge of

our surprise when, in the July number, we found our editor getting off the following:

"Now, so far as the Brotherhood of Locomotive Engineers is concerned, they have no provisions, written or otherwise, that would delegate any power to a representative in the proposed meeting to form a Trades' Congress."

In the same article the G. C. E. says: "We have received numerous enquiries relating to it"—meaning the then coming Congress, consequently he cannot plead ignorance of the call. As he published no letter advising against it, we have a right, judging from his past well-known policy, to conclude that all of the "numerous enquiries" favored a representation in that body.

So far as the Brotherhood is concerned it made no provision, written or otherwise, to be represented in the Railway Association; and if I am rightly informed the Railway Association sent out no invitation to us for such representation. Our G. C. E., without authority from the body over which he presides, asked, or begged, an invitation; and on receiving it, with an indecent haste, cap in hand and groveling before the representatives of capital, presented our whole work, disclosed the nature and purposes of our organization and humbly asked that we should not be judged harshly. In his efforts to take care of the Brotherhood and its interests, he did not wait for any provisions, "written or otherwise," authorizing him to expose our secret work and purposes to our natural antagonists. But, when our fellow-workmen ask and solicit a representation from our body, to take into consideration the interests of workingmen; when "numerous enquiries" satisfied the G. C. E. that the active spirits of our organization desired such a representation, he ignored everything, because first, there was no provision, written or otherwise; and second, because the invitation he received was coupled with the names of men with whom he, as a man, was at variance.

Self-respect compels me to say that there are many members of the B. of L. E. who do not endorse, or approve of, the slang of the editorials in our Journal. We do not think that we can acquire dignity of character by appearing in the columns of our organ as denouncers of "dirty blackguards." We do not wish to be understood as having been opposed, or indifferent, to the Labor Congress because one Charles Wilson has had a misunderstanding, or quarrel, with other men. The cause of labor is too high, too noble, too holy, to be staid or hindered by the wounded pride or vanity of any man.

It is true that our Brotherhood has refused to combine with other organizations. We have declined an alliance with the M. & B. and with the F. A.; but it was not because we

felt no interest in the welfare of other toilers. We stand or fall with workingmen generally, and not with any one particular organization of them. We particularly desire to be understood by all as favoring any and every movement calculated to elevate the moral, social and political condition of labor. Our sympathies, as well as our interests, rest with the producing classes. We know that capital seeks all it can get from labor, and we as well know that labor is striving to get all it can from capital. The conflict from the very nature of the case, is an irrepressible one, and as capital has been, is, and ever will be, combined and moving at the beck of one spirit, labor must do the same or go to the wall.

If it was due to our interests, as engineers, that the G. C. E. should beg a hearing before those who represent capital, and are, therefore, on the side against labor, is it not much more our due that we accept an invitation to representation in a Labor Congress where every man was a representative of labor and, therefore, on our side?

I can assure your readers that, although I have talked with many of our members, I have never heard one express himself as opposed to a participation in that Congress. While some condemn, and many laugh at, the figure of our G. C. E. before the Railway Association, none condemn the action of the Labor Congress.

The farmers are waking up! Capital has ceased to own the laboring man! The eight-hour movement has made rapid strides! Men and women are asking, everywhere, why it is that they who produce everything get so little of the fruits of their labor? The day has gone by when the learned of the world glibly talked about the ignorant work people. The Trades' Congress has, in spite of the tremendous opposition of Charles Wilson, sent its voice in cheering tones to the oppressed of all the world; it has created a bow of promise for all to gaze upon. The hearts of the Brotherhood rejoice, and

I remain yours, in hope,

RADIX.

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#### A Short Patent Sermon by A. Dow.

SYRACUSE, N. Y., August 11, 1873.

MR. EDITOR—On the concluding pages of every issue of the JOURNAL are found notices, more or less, under the head of "Obituary," which admonish us that death, though quietly, is surely doing its work. Such notices, of course, are properly in place, and I trust are not without their effect; and yet, in one particular, I think, are gravely at fault. The introductory preface, as a general thing, is: "Whereas, it has pleased God," etc., or "Whereas, it has pleased Divine Providence," etc., which is meant, I suppose, to represent

God. If it is the duty of a Christian to regard the pleasure of God as paramount to all other considerations, (as none who study His requirements, as expressed in the holy scriptures, will deny,) and if the command to "pray without ceasing" is to be done after the manner prescribed by Jesus, namely, that the will of God should be done on earth as it is in heaven, and if God's pleasure is to be enhanced by the death of mortals, it seems to me that every prayer should embody an earnest petition for war, famine, pestilence, or anything else that could be most expeditious in sweeping humanity from the face of the earth. But I cannot bring my mind to believe any such thing. Undoubtedly it was the pleasure of God to make the world, and he made man to populate it. Man sinned and fell, and death came into the world as the inexorable result of that sin and fall, and to me it seems just as consistent to accuse God of realizing pleasure from the cause as from the result. There are, however, considerations growing out of some men's lives and death, which I can fully believe God has pleasure in. If a man does what he can do in life to make those about him happy, God is pleased with his conduct, and he will not go unrewarded; but when his death entails upon his suffering family penury and want, because he was too stingy and selfish to join our Insurance Department, for fear he would now and then have to pay out a dollar to aid the bereaved ones of a departed brother, I cannot believe God has pleasure in such a man, in either life or death. God made of humanity a chain, of which every individual is a distinct link, calculated and adjusted for the place it was designed it should occupy. In the performance of legitimate duties many must be mantled by the haze of obscurity, while few, in comparison are necessarily brought to the foreground of public notice in the performance of theirs; but the All-seeing Maker of both is no unjust discriminator, and the question will never be asked, in the distribution of awards, how much we have done, but have we done what we could? I may not be able, my brother, to perform your duty, and you may be incompetent to do the work of President Fehrenbach, but we can each do our own, and if we do this, to the best of our ability, we need have no fear of displeasing God. Our glories will be just as great as though our names had been written high on the record of fame, and our pathway through life thickly studded with the landations of flattering sycophants. More than to all other causes that operate as a bar to the advancement of the workingman's interest he is indebted to those mean, despicable spirits called envy and jealousy. Our claims to God's favor in other respects may be ever so great, but if our disposition partakes of

these, we may not hope to please Him, for He has emphatically declared that "In honor preferring one another we are to bear each other's burdens, and so fulfil the law of Christ." If you are a candidate for office in your Union and get defeated, undoubtedly it is because your brothers deemed you unfit for the place. Don't place too much reliance upon your own opinion in the premises, for it is the most natural thing in the world for a man to overestimate his own abilities. Take your defeat like a man, get up and go with a vim for the next office, if you want it; if you do not don't cast about to secure the election of some drunken ignoramus for the purpose of embarrassing your successful competitor, and thus jeopardize the welfare of your Union. But I must not occupy too much space, and I will close by hoping in the future to see the allusion to God's pleasure, in the matter of obituary notices, something as follows: "We are thankful that while in health God was pleased to draw the attention of our departed brother to the necessity of making provision for his dependent family in case of death, and we congratulate our craft on the prompt manner in which five hundred dollars—the first installment of the one thousand due them—was paid. Fraternally, A. Dow.

HUNTSVILLE, ALA., July, 1873.

MR. EDITOR—Enclosed you will find a communication written by our late brother, Andrew Tannock. It was his intention to have sent it to you for your consideration for publication in the JOURNAL. Union No. 5 knowing his desire request that you will publish it in your valuable periodical. The Union has lost one of its brightest members, and his loss is irreparable. Yours fraternally,

Jos. L. TAYLOR, Cor. Sec.

MR. EDITOR—It is hardly necessary to let you know how I can appreciate the position of being a member of your order. It not only causes me to look to the future, but brings back to my memory the memorable events and positions that mechanics have occupied from a period that is traced farther back than the idol god of capitalists; for here I can say the position of mechanic was filled by God's noblest work when he placed Adam upon earth in all his purity and godliness. But like a great many of the present day, after receiving the gifts of labor, he would not turn a hand to help his fellow-man. Not only Adam did he select but from him until the dawning of the Christian era down through a period of four thousand years, he selected workingmen as his patriarchs, and when he concentrated all of his visible power on earth, none were so good as to receive it but a poor carpenter; and he selected workmen knowing they kept that golden rule: "Do unto others as you would

that others should do unto you." We not only can take the Bible for our standard to show the world what intelligence there is among our class, and the difference between them and ancient rulers, but we can look through the pages of Plutarch and find that during the reign of Romulus there was nothing but bloodshed caused by idleness and extravagance, they being raised in all the pomp and pride of dictators, and lavished their spoils from pure domestic virtue for selfishness and vice; and through all this we find that mechanics were true to each other, for at the building of the Jewish temple we find that they organized a body that, though nations have fallen and religious creeds have changed, has stood like walls of adamantine and as pure as the monuments of the ancients. It seems strange to me to hear men of intelligence claim that it is wrong for members of the mechanical arts to organize in bodies for their mutual benefit when that wisest of wise men—King Solomon—was a member of their order and who was the chief promoter of their organization. Show me a profession, mercantile business, manufacturing, religious doctrines or political creeds, and I will show you their secret orders for their benefit. Solomon, in the days of his wisdom, did not wish to proceed in any of his great undertakings without a mechanic to advise him; in this he selected a master in masonry, in another he had a master of metals, and in their judgment he relied for the government of the kingdom and internal improvements. As I understand it, we are not organized for the purpose of waging war upon capitalists but for the purpose of advocating temperance and morality, as well as improvement in our mechanical callings, and assisting one another in fighting the battle of life. If so, there is not one of those doctrines opposed to the manufacturers or masters. The first makes our homes happy and causes us to look with admiration upon our offspring; the second justifies our wages and assists those by whom we are employed; while the last is but charity, the "greatest gift from God to man." Let us not be contented but use every honorable means for our advancement, for contentment is backwardness; for when we see a nation contented and watchless it is going down the scale of progress. Our greatest hope is in the action and secrecy of our members. Before I became a member of your order, I was somewhat shocked for I could hear of, and see, actions of members of the body which I considered a shame and unmanly in any member to divulge. Surely we have men of the present day that will be true to their fellow men. I, for one, am in favor of being as strict on that point as we possibly can be. Another thing: there is no doubt but some men join our body to be expelled or abused by it,

thinking that they receive attention from their masters, but poor, ignorant beings, if their masters can trust in perjury, they are worse than the serfs of Russia.

BROOKLYN, N. Y., August 16, 1873.

ERIE, PA., August 16, 1873.

MR. EDITOR.—Samuel Ireland and Billy Higgins are worthy of something more than a passing notice; Sam joined Union No. 12 of Brooklyn on speculation, and made money by the operation; the poor miser only failed to attend our meetings when he discovered we had no more money for him. Ere he made this discovery he not only attended our meetings with careful and cautious punctuality but he labored zealously (but vainly) to demonstrate that only Sam Ireland and one or two others were entitled to receive any money at all; the poor man wanted to rake all in himself, notwithstanding the fact that if the men who contributed that money for the strike were only one-third as mean as Sam there would be nothing to rake in. We now come to Billy Higgins, and we will take him up gently by stating that he is the most ignoble ragamuffin as well as the most sordid covetous and greedy miser that can be found in the U. S. He, like Sam Ireland, made money by joining No. 12 and they are now to shabby to contribute one cent to the support of No. 17 of Erie, Pa. Is not No. 12 fortunate in being able to rid herself of such small fry?

Please to publish this in the proper place and oblige the members of Union No. 12 who have been kept down by several such men.

Yours fraternally, GEO. E. TRANSON.

## The English Iron Trade.

The falling off in the export of iron from Great Britain to the United States is conceded in England, and is only questioned in this country. The Welsh correspondent of the London Engineer, however, says: "It is now tacitly acknowledged that our iron trade with America has sensibly slackened, for, though Dowlais's and one or two other works keep up a fair export thither, the aggregate sent will not compare with the past. The Birmingham correspondent of the same paper confirms the tenor of the above in these words: It has transpired that it is impossible to do business with continental Europe or with America at anything like our prices for furnished iron. It is within our knowledge that German merchants who have bought bars at £12 (\$60 gold) and plates at £14 (\$70 gold) a ton decline to have them shipped even at these figures, which are too high for competition with native products. In one case, a German merchant, on being told that the iron must be sent from the works, replied that it might be sold by auction in this country, and he would bear the loss.

RENOVO, Pa., August 11, 1873.

MR. EDITOR.—The August number of the JOURNAL contains a letter from Bro. Nolan, through which he attempts to criticise my communication in the previous number. I will try and right him on the subject by asking him to take up the offending epistle, and read once more the sentence which is as follows: "Unions should beware of putting men in office who show too much enthusiasm, &c." The critic will perceive the manner in which enthusiasm is qualified. Now, I desire Bro. Nolan to distinctly understand me; I will be brief in my remarks.

I am to a certain extent an enthusiast; do not believe in men being tepid and laggard in any undertaking, either I. U. or otherwise; doubts will arise when men are noticed talking union at all times, instead of making deliberate use of their knowledge of the principles of Trades Union, by example worthy of emulation, actions calculated to excite the admiration of non-members, some men will be too enthusiastic and injure, where others with well timed observations succeed. Men are judged as much if not more by their actions, as by their words. If I mistake not, it was Demosthenes of old who gave utterance to the following remark: "Speech is silver, but silence is gold" a truism of great depth, and one that should be learned by non-squelchable spouters

The best men in any undertaking are those who are neither apathetic nor too demonstrative, too much of a good thing is worse than not enough. Father Matthew was a zealot without being obtrusive; the patriotic Patrick Henry made I believe but one speech, but his memory is stamped indelibly with true heartedness in the cause he advocated. Horace Greeley canvassed the U. S. enthusiastically for the Presidential chair and failed, but a less talkative candidate of greater action succeeded in attaining it; witness the actions of that powerful society founded by Ignatius De Loyola for the furtherance of their belief; do they not do wonders for the promulgation of their doctrine, and yet are great and positive workers.

Was not G. F. T. a great enthusiast while in the Marshalsea Prison, Ireland? and when he came out did he not talk Erin's freedom to every one and at all times? and what man to-day believes all his vituperative expletives directed against one country and lavish encomiums on another were genuine? Thomas Cranmer was an enthusiastic reformer until he recanted, and when at the stake he again changed his belief, was enthusiastic enough to thrust his hand in the pyre for having reneged the recantation. When St. Peter's enthusiasm led him to draw the sword and strike one of the captors, Christ himself checked him, and the same enthusiast afterwards denied the leader for whom he was so enthusiastic.

Some enthusiasts have allowed their imaginations to be the means of their death. Such cases I believe isolated when compared with objects gained by cool deliberate working. I suppose Socrates was enthusiastic in his belief of the obedience required by a despot when he quaffed the hemlock.

I will not cite any more instances nor trouble Bro. Nolan and the rest of your readers on the enthusiastic subject.

Bro. Nolan labors under another error. In his letter occurs the following passage, "probably the quiet working brother will be surprised to hear that it was an enthusiast who converted the man to unionism that he admits to have talked to in vain." Now my epistle of last July never called for a remark so much out of place, I admitted no such thing, my words are "I said but little to him at the time," and before the subject could be renewed the man in question left town. Bro. Nolan is far better posted as to said talked-to-in-vain member than some of us here. Trusting Bro. Nolan will accept this extempore answer fraternally I remain a friend of his believing too much of a good thing is worse than not enough.

Respectfully, JAS. M. LAWLER.

MILWAUKEE, August 19, 1873.

MR. EDITOR.—I take the liberty to address you in behalf of an afflicted wife, who has not heard in several years from her husband, John Healy, not knowing even if he lives yet. I know that he always was a member of the Union and therefore request you to let me know as soon as possible the whereabouts of said John Healy and as much as you know about him. You will thereby oblige very much. Yours truly, JOHN MORGAN,

129 Clybourne St., Milwaukee, Wis.

## Obituary.

INDIANAPOLIS, Aug. 14, 1873.

At a regular meeting of M. & B. Union No. 4 of Indiana held at Union Hall on the 14th day of August 1873, the following preamble and resolutions were unanimously adopted by a rising silent vote.

WHEREAS, It has pleased the Supreme Ruler of the Universe to call from this transitory life to a higher and nobler sphere, our esteemed friend, beloved brother and fellow craftsman, our late Recording Secretary, EDWARD RICHARDSON; and

WHEREAS, It becomes our bounden duty to pay a high tribute of respect to the memory of one so ever active in advancing our cause, so ever genial in intercourse with his fellow men, so ever true to his principles of right. Therefore be it

Resolved, That we bow in humble submission to the Divine will, "who doeth all things well."

Resolved, that in the death of Brother RICHARDSON, this Union has lost a true and worthy brother, a prompt and faithful officer, his parents a good and loyal son, his sister a kind and loving brother, the trade a skillful and efficient mechanic, and the community an esteemed and valued citizen.

Resolved, that we deeply sympathize with his sorely afflicted family, and tender to them our truest condolence, and pray that the author of their affliction may pour the oil of consolation into their wounds and sorrowing hearts.

Resolved, that as a token of respect for our deceased brother and officer, that a page be left blank in the minute book to be duly inscribed, our charter be draped, the usual badge of mourning worn when in session, and the office remain vacant for the space of thirty days.

Resolved, That these resolutions be spread upon the minutes of the Union, a copy be forwarded to his parents, and be published in the M. & B. Journal.

At the same time and place, the following were also unanimously adopted:

WHEREAS, It has pleased the Divine Head of the Church to enter the family circle of our highly esteemed Brother Jacob Kiefer, and remove therefrom his dearly beloved wife;

WHEREAS, It seems meet and proper that we should express some part of the great sorrow we feel for our deeply afflicted brother, therefore be it

Resolved; That we tender to him our deepest sympathy and heartfelt condolence and pray that the giver of every good and perfect gift may bestow upon him the sweet consolation he so much needs, and heal the wounds he has made.

Resolved, That a copy of these resolutions be presented to our bereaved brother and that they be published in the M. & B. Journal.

A. J. DONOVAN, Pres.

A. J. MALONE, Rec. Sec. pro tem.

—  
COLUMBUS O., August 12, 1873.

The following preamble and resolutions were unanimously adopted by M. & B. U. No. 5 of Ohio at a regular meeting held August 12th.

WHEREAS, It has pleased an allwise omnipotent providence to lay the hand of affliction upon the family of our worthy Vice Pres. W. A. Shart, in calling away his second eldest daughter,

Resolved, That we deem it our duty to express the deep sympathy we feel for our bereaved brother and family, for the loss of the dear one who though removed from the transitory scenes of life, still lives in the hearts and memories of those who knew her.

Resolved, That a copy of these resolutions be presented to our brother and also published in the M. & B. Journal.

GEO. O. McDONALD, }  
B. A. LEGG, } Com.  
JNO. CULLIAN, }  
—

HUNTSVILLE, August 2, 1873.

At a regular meeting of M. & B. Union No. 5 of Ala. the following preamble and resolutions were adopted:

WHEREAS, It has pleased an Allwise Providence to take from us our friend and brother ANDREW TANNOCK; and

WHEREAS, It is our duty as brothers to extend our heartfelt sympathy to the bereaved wife and family;

Resolved, That as a token of our brotherly love and respect to the memory of our deceased brother the charter of our Union be draped in mourning, and the brothers of Union No. 5 wear the usual badge of mourning for thirty days.

Resolved, That a copy of these resolutions be sent to the family of our deceased brother and published in the M. & B. JOURNAL.

J. P. SPENCE, }  
G. W. KIDWELL, } Com.  
Jos. L. TAYLOR, }  
J. S. GILES, }  
—

MR. EDITOR—Never before, since the organization of our beloved Union in this city, have we assembled to perform the last sad duty of consigning one of our beloved brothers to the grave, but at last the grim destroyer, death, has entered, unbidden, our lodge and deprived us of one of our staunchest members. On the 15th of July our beloved brother, Andrew Tannock, fell a victim to the cholera, that dread scourge which has darkened our whole country. Brother Tannock was a native of Glasgow, Scotland, and was twenty-eight years of age. As a husband and father, he was loving and kind; as a shopmate he was one of the noble kind we frequently find, generous and kind-hearted to a fault—a firm friend and true gentleman. He leaves a devoted wife and beautiful little daughter to mourn the kind and loving protector whom God has seen fit to deprive them. Brother Tannock will be deeply mourned in a large number of shops, where he has many warm friends, but in none more sincerely than in the shops at this place. Although comparatively a young member of our order, he has shown the characteristics of a firm and devoted working member and the Union here will long deplore our untimely loss. To his many friends and relatives, who are far away, I would say that during his last sad illness his devoted wife received all the assistance in administering to his comfort from his fellow-craftsmen

that love and friendship could suggest. His remains were accompanied to the grave by M. & B. U. No. 5 of Ala., of which he was an honored member, Helion Lodge of Free and Accepted Masons, and the fire company of which he was engineer, and a large circle of friends and acquaintances. No eulogy is needed to perpetuate his memory; his kind words and deeds will long be remembered by many of his companions. Brother Tannock, before his dissolution, gave his friends to understand that he had no fear of the grave; that his faith was in that great and merciful God "who doeth all things well," and in His wise hands we leave our beloved and lamented friend and brother.

See yonder new-made grave,  
O'er which the willow waves,  
No sound is heard there save  
The wild bird's song;  
Sweet flowers, sweet and fair,  
Arranged with nicest care,  
Speak in the silent summer air  
Of friendship strong.

J. P. S.

INDIANAPOLIS, August 5, 1873.

At a regular meeting of M. & B. Union No. 10 of Ind., the following preamble and resolutions were adopted:

WHEREAS, It has pleased the Sovereign Ruler of the Universe to remove from this transitory life EDWARD RICHARDSON, our beloved brother and fellow laborer in the noble cause of elevating the standard of our calling; and

WHEREAS, It becomes our duty to pay a tribute to his memory; therefore be it

Resolved, That we bow in humble submission to the Divine Authority who has been pleased to call suddenly from this world of perplexities and cares, unto a better and happier sphere, our beloved brother.

Resolved, That we tender to the members of M. & B. Union No. 4 and to his friends our heartfelt sympathies, and pray that the Author of their bereavement may heal the wound he gave, and bring consolation to their sorrowful hearts.

Resolved, That as a token of respect to his memory our charter be draped in mourning for the space of thirty days.

Resolved, That a copy of these resolutions be presented to M. & B. Union No. 4 and published in the M. & B. JOURNAL.

JOHN BAKER,  
G. W. KLINE, } Com.  
ALBERT SCHIFFLING,

BOWLING GREEN, Ky., July, 1873.

Again death has been in our midst, ever with resistless persistency beckoning us to that land from which there is no returning; impressing our hearts with that one great and

solemn truth that "dust thou art, and unto dust thou shalt return." We have assembled to pay the last tribute of respect to our young brother MICHAEL McDERMIT, who was just commencing to taste the sweets of life; whose young heart was filled with hopes and of long life, when suddenly the word went forth "thus far and no farther," and hopes and joys and life were all ended; the grave demanded and has taken them all. Therefore be it

Resolved, That as a token of respect to our departed brother, the charter of our Union be draped in mourning for thirty days.

Resolved, That a copy of these resolutions be presented to the relatives of our deceased brother, and that they be published in the Green River Pantagraph, and also in M. & B. JOURNAL.

OWEN NIGENT, }  
M. S. CURLEY, } Com.  
R. R. MINGUS, }

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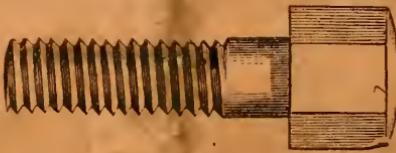
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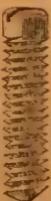
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